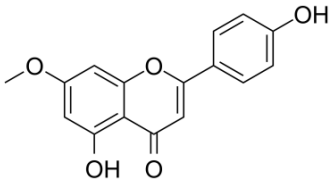
Genkwanin

Cat. No.:	HY-N0731
CAS No.:	437-64-9
Molecular Formula:	$C_{16}H_{12}O_5$
Molecular Weight:	284.26
Target:	Others
Pathway:	Others
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 5 mg/mL (17.59 mM; Need ultrasonic)
H_2O : < 0.1 mg/mL (insoluble)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.5179 mL	17.5895 mL	35.1791 mL
	5 mM	0.7036 mL	3.5179 mL	7.0358 mL
	10 mM	0.3518 mL	1.7590 mL	3.5179 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: **10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline**
   Solubility: ≥ 0.5 mg/mL (1.76 mM); Clear solution
2. Add each solvent one by one: **10% DMSO >> 90% (20% SBE-β-CD in saline)**
   Solubility: 0.5 mg/mL (1.76 mM); Suspended solution; Need ultrasonic
3. Add each solvent one by one: **10% DMSO >> 90% corn oil**
   Solubility: ≥ 0.5 mg/mL (1.76 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Genkwanin is a major non-glycosylated flavonoid with anti-flammatory activities.

In Vitro

Cell viability analysis shows that Genkwanin does not affect the cell viability up to a concentration of 50 μM. Genkwanin inhibits the LPS-induced production of NO in a concentration-dependent manner. iNOS only expresses in the present of external stimulus. Genkwanin could not significantly affect the activity of iNOS. The effect of Genkwanin on the production of proinflammatory cytokines is examined. Genkwanin suppresses the productions of TNF-a, IL-1b and IL-6 in LPS stimulated RAW264.7 macrophages in a concentration-dependent manner. Genkwanin

	significantly suppresses the AP-1 signaling pathway but has little effect on the NF-kB signaling pathway. It is indicated that Genkwanin suppresses the phosphorylation of p38 and JNK in a concentration-dependent manner, but little affects ERK1/2 phosphorylation. Originally identified as an immediate early gene, MKP-1 is then found to be a dual specificity phosphatase acting as a negative regulator of ERK1/2, JNK and p38 MAPK activities, with predominant effects on the latter two. Pretreatment with Genkwanin markedly up-regulates the expression of MKP-1 without affecting MKP-1 mRNA[1].

REFERENCES

[1]. Gao Y et al. Genkwanin inhibits proinflammatory mediators mainly through the regulation of miR-101/MKP-1/MAPK pathway in LPS-activated macrophages. PLoS One. 2014 May 6;9(5):e96741.

Caution: Product has not been fully validated for medical applications. For research use only.

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